

TROCAR HAVING PLANAR FIXED SEPTUM SEAL AND RELATED METHODS

ABSTRACT OF THE DISCLOSURE

A septum valve having peripheries thereof adapted to be fixedly positioned in a valve housing of a trocar system is provided. The septum valve includes a valve body having an opening positioned in a medial portion of the valve body and adapted to individually and separately receive a plurality of different elongate tools each having a different diameter therethrough so that when any one of the plurality of elongate tools is positioned through the valve opening a septum seal is maintained between peripheries of the valve body surrounding the valve opening and abuttingly contacting outer peripheries of the any one of the plurality of elongate tools extending therethrough. The valve body has first and second layers of a fabric material and a layer of elastomeric material positioned between and contacting each of the first and second layers of the fabric material. The septum valve also includes a periphery valve section connected to and extending radially outwardly from peripheries of the valve body and having an outer perimeter thereof adapted to be fixedly connected to the valve housing. The periphery valve section has a plurality of rib members each radially extending substantially an entire distance between an outer perimeter of the valve body and the outer perimeter of the periphery valve section and symmetrically positioned spaced-apart from each other. The periphery valve section has a greater flexibility than the valve body.